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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,686	01/18/2002	Garrett Andrew Smith		3768

7590 02/06/2003
Garrett A. Smith
1365 Bishop Street
San Luis Obispo, CA 93401

EXAMINER

SMITH, JULIE KNECHT

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 02/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/052,686

Applicant(s)

SMITH, GARRETT ANDREW

Examiner

Julie K Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edwards (5,493,937) in view of Bazille (2780698).

Regarding claims 1-7, 9, 11 and 12, Edwards discloses a bottom bracket assembly for a bicycle comprising a spindle (8) that is rotatably held in an outer bracket portion (12) with two cartridge bearings (10), each bearing including outer and inner races, wherein the inner races (10a-1) are fit onto said spindle and the outer races (10a) are fit into said outer bracket portion, said inner races being fixed on said spindle in both axial directions by abutting inner and outer stop elements, said inner stop element having a step (20) and said outer stop element being a stop ring (28). Edwards further discloses crank arms (4) received in adapting portions (20) of said spindle such that the crank arms abut against the outer stop elements in an axial direction (see fig. 2). Edwards is silent as to the outer race being moveable in both axial directions.

However, Bazille teaches an outer race (12, see fig. 2) mounted in an outer bracket portion (3) such that it is free to move in both axial directions. Bazille further teaches a bottom bracket in which an outer bracket portion (3) consists of an adaptor portion (5) and a cylindrical sleeve (4) wherein said adaptor and said sleeve provide shoulders (see fig. 2) to limit axial

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movement of an outer bearing race, and where gaps are provided between the axial end surfaces of said outer race and said shoulders that allow the outer race to move axially.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the adaptor assembly of Edwards with the teachings of Bazille to provide gaps between the outer race and the shoulders to reduce the force placed upon the race when impacted, reducing damage and wear on the bearing.

Regarding claim 8, Edwards discloses threads for fixing a crank arm to a spindle.

Regarding claim 10, Bazille teaches one bearing race being able to move axially in both directions, but does not disclose a second bearing race being axially moveable. However, it would have been obvious to modify a second bearing race to be axially moveable as it would merely duplication of parts to provide a second axially moveable bearing race.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6,116,114 to Edwards

4,552,468 to Hopper, Jr.

4,788,759 to Gordon et al.

3,943,803 to Hafla

5,426,997 to Brion

4,191,488 to Bickerton

648,077 to Ludlow

627,597 to Scott

596,846 to Brown

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie K Smith whose telephone number is 703-305-3948. The examiner can normally be reached on Monday-Friday, 8-5:30, (Every other Friday off).

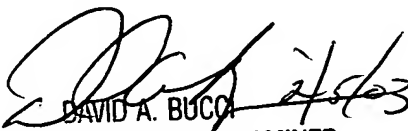
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on 703-308-3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

JKS

jks

January 30, 2003


DAVID A. BUCCI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600